Trying 3106016892...Open

Welcome to STN International! Enter x:x LOGINID: ssspta1656sxc PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

Welcome to STN International

NEWS Web Page URLs for STN Seminar Schedule - N. America NEWS Dec 17 The CA Lexicon available in the CAPLUS and CA files 3 Feb 06 NEWS Engineering Information Encompass files have new names 4 Feb 16 NEWS TOXLINE no longer being updated 5 Apr 23 NEWS Search Derwent WPINDEX by chemical structure Apr 23 PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA NEWS May 07 DGENE Reload NEWS

NEWS EXPRESS May 23 CURRENT WINDOWS VERSION IS V6.0a, CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP), AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2001 NEWS HOURS STN Operating Hours Plus Help Desk Availability NEWS INTER General Internet Information NEWS LOGIN Welcome Banner and News Items NEWS PHONE Direct Dial and Telecommunication Network Access to STN NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 16:34:35 ON 19 JUN 2001

=> FIL BIOSIS MEDLINE EMBASE LIFESCI CAPLUS COST IN U.S. DOLLARS

TOTAL SINCE FILE ENTRY SESSION 0.15 0.15

FULL ESTIMATED COST

FILE 'BIOSIS' ENTERED AT 16:34:44 ON 19 JUN 2001 COPYRIGHT (C) 2001 BIOSIS(R)

FILE 'MEDLINE' ENTERED AT 16:34:44 ON 19 JUN 2001

FILE 'EMBASE' ENTERED AT 16:34:44 ON 19 JUN 2001 COPYRIGHT (C) 2001 Elsevier Science B.V. All rights reserved.

FILE 'LIFESCI' ENTERED AT 16:34:44 ON 19 JUN 2001 COPYRIGHT (C) 2001 Cambridge Scientific Abstracts (CSA)

FILE 'CAPLUS' ENTERED AT 16:34:44 ON 19 JUN 2001 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2001 AMERICAN CHEMICAL SOCIETY (ACS)

```
=> s random mutagens?
             O RANDOM MUTAGENS?
=> s random mutagensis
             0 RANDOM MUTAGENSIS
=> s mutagenesis
        205733 MUTAGENESIS
=> s random
       341978 RANDOM
L4
=> s 13 and 14
          6778 L3 AND L4
=> s polynuceotide or polynucleotides
         18001 POLYNUCEOTIDE OR POLYNUCLEOTIDES
=> s polynucleotide or polynucleotides
         32332 POLYNUCLEOTIDE OR POLYNUCLEOTIDES
=> s 15 and 17
            32 L5 AND L7
=> dup rem 18
PROCESSING COMPLETED FOR L8
             22 DUP REM L8 (10 DUPLICATES REMOVED)
=> d 19 1-22
L9
     ANSWER 1 OF 22 CAPLUS COPYRIGHT 2001 ACS
     2001:300865 CAPLUS
AN
DN
     134:321560
ΤI
     Directed evolution using random hybridization of homologous
     sequences to transient templates to create sequence variants for
screening
     Coco, Wayne M.; Arensdorf, Joseph J.; Crist, Michael J.; Darzins, Aldis;
     Encell, Lance P.; Folsom, Brian R.; Hektor, Hans J.; Nalty, Mark S.;
     Levinson, William E.; Palmer, Stephen R.
PA
     Enchira Biotechnology Corporation, USA; et al.
SO
     PCT Int. Appl., 158 pp.
     CODEN: PIXXD2
DΨ
     Patent
LA
     English
FAN.CNT 2
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                      ----
                           -----
     ----
                                           _____
                                                           ______
    WO 2001029211
PΙ
                     A2 20010426
                                           WO 2000-US29046 20001019
           AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
            \label{eq:lu_def} \text{LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,}
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
            CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     P
PRAI US 1999-160420
                            19991019
     US 2000-514660
                      A2
                            20000229
    US 2000-218883
                      Ρ
                            20000718
```

```
US 2000-219087
                       Ρ
                            20000718
     US 2000-219090
                            20000718
                       Р
     US 2000-618696
                       Α2
                            20000718
     US 2000-618696
                            20000718
                       Α
     US 2000-618935
                       A2
                            200.00718
L9
     ANSWER 2 OF 22 CAPLUS COPYRIGHT 2001 ACS
ΑN
     2001:137366 CAPLUS
DN
     134:188966
ΤI
     Method for random mutagenesis and amplification of
     nucleic acid
     Lietz, Eric
ΙN
PΑ
     Genopsys, USA
     PCT Int. Appl., 60 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND
                           DATE
                                           APPLICATION NO.
                                                             DATE
                      ----
                            _____
                                           _____
                                           WO 2000-US22078 20000811
     WO 2001012802
                            20010222
PΤ
                      A1
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-374274
                      A1
                           19990813
RE.CNT 13
(1) Crea, R; WO 9115581 A 1991 CAPLUS
(3) Ge, L; BIOTECHNIQUES 1997, V22(1), P28 CAPLUS
(4) Horton, R; GENE 1989, V77, P61 CAPLUS
(5) Joyce, G; NUCLEIC ACIDS RESEARCH 1989, V17(2), P711 CAPLUS
(6) Landt, O; GENE 1990, V96, P125 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L9
     ANSWER 3 OF 22 BIOSIS COPYRIGHT 2001 BIOSIS
                                                         DUPLICATE 1
ΑN
     2001:266595 BIOSIS
DN
     PREV200100266595
ΤI
     Recombination of polynucleotide sequences using random
     or defined primers.
AU
     Arnold, Frances H.; Shao, Zhixin (1); Affholter, Joseph A.; Zhao, Huimin
     H.; Giver, Lorraine J.
CS
     (1) Pasadena, CA USA
     ASSIGNEE: California Institute of Technology
     US 6153410 November 28, 2000
PТ
SO
     Official Gazette of the United States Patent and Trademark Office
Patents,
     (Nov. 28, 2000) Vol. 1240, No. 4, pp. No Pagination. e-file.
     ISSN: 0098-1133.
DT
     Patent
LA
     English
     ANSWER 4 OF 22 BIOSIS COPYRIGHT 2001 BIOSIS
T.9
                                                         DUPLICATE 2
AN
     2001:209466 BIOSIS
DN
     PREV200100209466
TΤ
     Methods for generating polynucleotides having desired
```

```
characteristics by iterative selection and recombination.
ΑU
     Stemmer, Willem P. C.
     ASSIGNEE: Maxygen, Inc.
ΡI
     US 6117679 September 12, 2000
SO
     Official Gazette of the United States Patent and Trademark Office
Patents,
     (Sep. 12, 2000) Vol. 1238, No. 2, pp. No Pagination. e-file.
     ISSN: 0098-1133.
DT
     Patent
LA
     English
L9
     ANSWER 5 OF 22 CAPLUS COPYRIGHT 2001 ACS
ΑN
     2000:646133 CAPLUS
DN
     133:233579
TΙ
     In vitro evolution of protein properties using methods of saturating
     mutagenesis and high throughput screening and selection for
     specific properties
ΙN
     Short, Jay M.; Frey, Gerhard Johann
PΑ
     Diversa Corporation, USA
SO
     PCT Int. Appl., 259 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 15
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
     -----
                      _____
                                           -----
PΙ
     WO 2000053744
                     A2
                            20000914
                                           WO 2000-US6497
                                                            20000309
     WO 2000053744
                      A3
                            20010118
            AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU,
             CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
             IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
             SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6238884
                       В1
                           20010529
                                          US 1999-267118
                                                            19990309
PRAI US 1999-267118
                           19990309
     US 1999-276860
                       Α
                           19990326
     US 1999-332835
                       Α
                           19990614
     US 1995-8311
                           19951207
                       Р
     US 1996-760489
                       A1
                           19961205
     US 1998-185373
                      A2
                           19981103
     US 1999-246178
                      A2
                           19990204
L9
    ANSWER 6 OF 22 CAPLUS COPYRIGHT 2001 ACS
     2000:210351 CAPLUS
AN
DN
     132:247119
ΤI
    Method for making insertional mutations using in vivo Tn5 transposase
    mutagenesis
IN
     Reznikoff, William S.; Goryshin, Igor Y.
PΑ
    Wisconsin Alumni Research Foundation, USA
     PCT Int. Appl., 25 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
    English
FAN.CNT 1
                     KIND
     PATENT NO.
                           DATE
                                          APPLICATION NO.
                                                           DATE
                      ____
                           _____
PΙ
    WO 2000017343
                     A1
                           20000330
                                          WO 1999-US21960 19990921
```

```
AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
               DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
           RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
      US 6159736
                          Α
                                 20001212
                                                US 1998-159363
                                                                       19980923
      AU 9960573
                                                  AU 1999-60573
                                 20000410
                           Α1
                                                                       19990921
PRAI US 1998-159363
                           Α
                                 19980923
      WO 1999-US21960
                                 19990921
                           W
RE.CNT 8
(1) Goryshin, I; JOURNAL OF BIOLOGICAL CHEMISTRY 1998, V273(13), P7367 CAPLUS
(2) Goryshin, I; NATURE BIOTECHNOLOGY 2000, V18(1), P97 CAPLUS
(3) Junop, M; EMBO JOURNAL 1996, V15(10), P2547 CAPLUS
(4) Leschziner, A; PROC NATL ACAD SCI USA 1998, V95, P7345 CAPLUS
(5) Mizuuchi, M; CELL 1992, V70, P303 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ANSWER 7 OF 22 CAPLUS COPYRIGHT 2001 ACS
ΑN
      2000:736184 CAPLUS
DN
      133:291923
TI
      Methods of shuffling polynucleotides by fragmentation and
      multi-cyclic extension
ΙN
      Stemmer, Willem P. C.
PΑ
      Maxygen, Inc., USA
      U.S., 61 pp.
      CODEN: USXXAM
DT
      Patent
      English
FAN.CNT 1
      PATENT NO.
                         KIND DATE
                                                  APPLICATION NO. DATE
      -----
                          ----
                                                  ______
      US 6132970
PΙ
                               20001017
                                                  US 1998-100856 19980619
RE.CNT 187
(2) Andersson; PNAS 1996, V93, P906 CAPLUS
(3) Anon; EP 552266 CAPLUS
(4) Anon; EP 0252666 B1 1988 CAPLUS
(5) Anon; WO 9007576 1990 CAPLUS
(6) Anon; WO 9014424 1990 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L9
     ANSWER 8 OF 22 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.
AN
     2000106976 EMBASE
TΙ
     Capping DNA with DNA.
ΑU
     Li Y.; Liu Y.; Breaker R.R.
CS
     R.R. Breaker, Department of Molecular Biology, Yale University, New
Haven,
     CT 06520-8103, United States. ronald.breaker@yale.edu
SO
     Biochemistry, (21 Mar 2000) 39/11 (3106-3114).
      Refs: 39
     ISSN: 0006-2960 CODEN: BICHAW
CY
     United States
DT
     Journal; Article
FS
     029
               Clinical Biochemistry
LA
     English
SL
     English
```

```
L9
     ANSWER 9 OF 22 CAPLUS COPYRIGHT 2001 ACS
ΑN
     2000:316413 CAPLUS
DN
     134:52004
TΙ
     Studies on the two methods of gene random mutation in vitro
     Li, Hong-Jian; Zhang, Yi; Zhou, Tian-Hong; Li, Yue-Qin
ΑU
CS
     College of Life Science and Technology, Jinnan University, Canton,
510632,
     Peop. Rep. China
SO
     Yichuan (2000), 22(2), 96-100
     CODEN: ICHUDW; ISSN: 0253-9772
PΒ
     Yichuan Zazhi Bianjibu
DT
     Journal
LA
     Chinese
L9
     ANSWER 10 OF 22 LIFESCI
                                 COPYRIGHT 2001 CSA
     2001:47007 LIFESCI
ΑN
TI
     Methods for generating polynucleotides having desired
     characteristics by iterative selection and recombination
AU
     Stemmer, W.P.C.
CS
     Maxygen, Inc.
     (20000912) . US Patent: 6117679; US CLASS: 435/440; 435/6; 536/23.1;
SO
     536/24.3.
DT
     Patent
FS
LA
     English
ST.
     English
     ANSWER 11 OF 22 CAPLUS COPYRIGHT 2001 ACS
L9
     1999:811262 CAPLUS
AN
DN
     132:45795
TI
     Method for producing polynucleotides with desired properties by
     reiterative mutagenesis and screening
IN
     Krebber, Claus M.
     Maxygen, Inc., USA
PA
     PCT Int. Appl., 42 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
     -----
                      ----
                                           -----
PΙ
     WO 9965927
                      A2
                            19991223
                                           WO 1999-US13479 19990615
     WO 9965927
                      Α3
                            20000210
           AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ,
             DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS,
             JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK,
             MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,
             TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
             ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9944416
                            20000105
                                          AU 1999-44416
                      A1
                                                            19990615
     EP 1090024
                                           EP 1999-927536
                      A2
                           20010411
                                                           19990615
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
PRAI US 1998-89649
                       P
                            19980617
    WO 1999-US13479
                       W
                            19990615
L9
    ANSWER 12 OF 22 CAPLUS COPYRIGHT 2001 ACS
```

```
ΑN
     1999:784255 CAPLUS
DN
     132:31726
     Compositions of nucleic acid which alter ligand-binding characteristics
ΤI
     and related methods and products
ΙN
     Lane, Michael J.; Benight, Albert S.; Faldasz, Brian D.
     TM Technologies, Inc., USA
PΑ
SO
     PCT Int. Appl., 62 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO.
                                                           DATE
                     ____
                           _____
                                           -----
PΙ
     WO 9963077
                      Α2
                            19991209
                                          WO 1999-US12516
                                                           19990604
     WO 9963077
                      A3
                            20000629
         W: JP
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                            19980604
PRAI US 1998-87905
                      Ρ
     US 1999-324672
                            19990603
                      Α
     ANSWER 13 OF 22 CAPLUS COPYRIGHT 2001 ACS
L9
ΑN
     1998:672658 CAPLUS
DN
     129:271526
TΙ
     Recombination of polynucleotide sequences using random
     or defined primers
ΙN
     Arnold, Frances H.; Shao, Zhixin; Affholter, Joseph A.; Zhao, Huimin;
     Giver, Lorraine J.
PA
     California Institute of Technology, USA
     PCT Int. Appl., 78 pp.
     CODEN: PIXXD2
DT
     Patent
     English
FAN.CNT 3
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
     _____
                     ----
                                          ______
PT
     WO 9842832
                     A1
                           19981001
                                         WO 1998-US5956 19980325
        W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
            DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,
            LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
            PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,
            UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
            FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
            GA, GN, ML, MR, NE, SN, TD, TG
     US 6153410
                           20001128
                                          US 1997-905359
                      Α
                                                           19970804
    AU 9869420
                      A1
                           19981020
                                          AU 1998-69420
                                                           19980325
    AU 724698
                      В2
                           20000928
    EP 920496
                      Α1
                           19990609
                                          EP 1998-915171
                                                           19980325
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
    BR 9804791
                      Α
                           19990817
                                          BR 1998-4791
                                                           19980325
    JP 2000511783
                      T2
                           20000912
                                          JP 1998-545987
                                                           19980325
PRAI US 1997-41666
                      Ρ
                           19970325
    US 1997-45211
                      Ρ
                           19970430
    US 1997-46256
                      Ρ
                           19970512
    US 1997-905359
                      Α
                           19970804
    US 1997-905058
                      В2
                           19970801
    WO 1998-US5956
                      W
                           19980325
```

ANSWER 14 OF 22 CAPLUS COPYRIGHT 2001 ACS

L9

```
ΑN
     1998:672568 CAPLUS
DN
     129:286711
TI
     Recombination of polynucleotide sequences using random
     or defined primers and staggered extension
     Arnold, Frances H.; Shao, Zhixin; Affholter, Joseph A.; Zhao, Huimin;
IN
     Giver, Lorraine J.
PΑ
     California Institute of Technology, USA
SO
     PCT Int. Appl., 101 pp.
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 3
     PATENT NO.
                       KIND DATE
                                            APPLICATION NO.
                                                               DATE
     -----
                      ____
                            ------
                                            ______
PΙ
     WO 9842728
                             19981001
                                            WO 1998-US5814
                       A1
                                                               19980325
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,
             UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
             FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
     US 6153410
                      Α
                             20001128
                                             US 1997-905359
                                                               19970804
     AU 9867725
                             19981020
                                             AU 1998-67725
                        Α1
                                                               19980325
     EP 975653
                           20000202
                                             EP 1998-913096
                        A1
                                                               19980325
         R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE, PT, IE, FI
PRAI US 1997-41666
                      Р
                             19970325
     US 1997-45211
                        Ρ
                             19970430
     US 1997-46256
                        Ρ
                             19970512
     US 1997-905359
                             19970804
                        Α
     US 1997-905058
                        B2
                             19970801
     WO 1998-US5814
                        W
                             19980325
     ANSWER 15 OF 22 CAPLUS COPYRIGHT 2001 ACS
L9
ΑN
     1998:66014 CAPLUS
DN
ΤI
     Method of DNA shuffling with polynucleotides produced by
     blocking or interrupting a synthesis or amplification process
IN
     Short, Jay M.
PA
     Recombinant Biocatalysis, Inc., USA; Short, Jay M.
SO
     PCT Int. Appl., 80 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 15
     PATENT NO.
                      KIND DATE
                                            APPLICATION NO.
                                                              DATE
     -----
                      ----
                                            ----
ΡI
     WO 9801581
                      A1 19980115
                                            WO 1997-US12239 19970709
         W: AU, CA, IL, JP, US
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE
     US 5965408
                             19991012
                        Α
                                             US 1996-677112
                                                              19960709
     CA 2259628
                             19980115
                       AΑ
                                             CA 1997-2259628 19970709
     AU 9736626
                       A1
                             19980202
                                            AU 1997-36626
                                                              19970709
     EP 1007727
                             20000614
                       Α1
                                            EP 1997-933438
                                                              19970709
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000514651
                       T2
                             20001107
                                            JP 1998-505366
                                                              19970709
PRAI US 1996-677112
                       A2
                             19960709
     WO 1997-US12239
                       W
                             19970709
```

```
L9
     ANSWER 16 OF 22 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1998:623998 CAPLUS
DN
     129:240855
ΤI
     Methods for generating polynucleotides having desired
     characteristics by iterative selection and recombination
     Stemmer, Willem P. C.; Crameri, Andreas
IN
PA
     Affymax Technologies N.V., Neth. Antilles
SO
     U.S., 74 pp. Cont.-in-part of U.S. Ser. No. 198,431.
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 8
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                                                              DATE
                                            ________
PΙ
     US 5811238
                       Α
                             19980922
                                            US 1995-564955
                                                              19951130
                             19970225
     US 5605793
                       Α
                                            US 1994-198431
                                                              19940217
     EP 934999
                       A1
                             19990811
                                            EP 1998-122040
                                                              19950217
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
ΙE
     JP 2001057893
                       A2
                             20010306
                                            JP 2000-201673
                                                              19950217
     EP 1094108
                       A2
                             20010425
                                            EP 2001-100962
                                                              19950217
     EP 1094108
                       A3
                             20010509
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
     US 5830721
                       Α
                             19981103
                                            US 1996-537874
                                                              19960304
     US 6117679
                       Α
                             20000912
                                            US 1996-621859
                                                              19960325
     CA 2239099
                       AΑ
                             19970605
                                            CA 1996-2239099
                                                             19961202
     WO 9720078
                       A1
                            19970605
                                            WO 1996-US19256 19961202
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
     AU 9710873
                       A1
                            19970619
                                            AU 1997-10873
                                                             19961202
    AU 713952
                       B2
                            19991216
     EP 876509
                       Α1
                            19981111
                                            EP 1996-940934
                                                             19961202
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
    EP 911396
                            19990428
                       A2
                                            EP 1998-122014
                                                             19961202
     EP 911396
                       A3
                            19990506
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000500981
                       T2
                            20000202
                                            JP 1997-520744
                                                             19961202
    JP 2000308490
                       A2
                            20001107
                                            JP 1999-267847
                                                             19961202
    EP 1103606
                       Α2
                            20010530
                                            EP 2001-103198
                                                             19961202
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
    US 6180406
                       В1
                            20010130
                                            US 1998-99015
                                                             19980617
    AU 9923816
                       Α1
                            19990812
                                            AU 1999-23816
                                                             19990416
                      ·A2
PRAI US 1994-198431
                            19940217
                            19960304
     US 1996-537874
                       A2
                            19950217
    AU 1995-29714
                       А3
    EP 1995-911826
                       Α3
                            19950217
    JP 1995-521977
                       A3
                            19950217
    WO 1995-US2126
                       W
                            19950217
    US 1995-564955
                       A2
                            19951130
    US 1996-621859
                       Α
                            19960325
```

```
EP 1996-940934
                       А3
                             19961202
     JP 1997-520744
                       А3
                             19961202
     WO 1996-US19256
                       W
                             19961202
L9
     ANSWER 17 OF 22 BIOSIS COPYRIGHT 2001 BIOSIS
                                                         DUPLICATE 3
ΑN
     1998:121044 BIOSIS
DN
     PREV199800121044
TI
     Random-priming in vitro recombination: An effective tool for
     directed evolution.
     Shao, Zhixin; Zhao, Huimin; Giver, Lori; Arnold, Frances H. (1)
ΑU
CS
     (1) Division Chemistry Chemical Engineering 210-41, California Inst.
     Technol., Pasadena, CA 91125 USA
SO
     Nucleic Acids Research, (Jan. 15, 1998) Vol. 26, No. 2, pp. 681-683.
     ISSN: 0305-1048.
DT
     Article
     English
LA
L9
     ANSWER 18 OF 22 LIFESCI
                                 COPYRIGHT 2001 CSA
ΑN
     1998:63865 LIFESCI
     Molecular evolution by staggered extension process (StEP) in vitro
TΙ
     recombination
ΑU
     Zhao, Huimin; Giver, L.; Shao, Zhixin; Affholter, J.A.; Arnold, F.H.*
CS
     Div. Chem. and Chem. Eng., California Inst. Technol., Pasadena, CA 91125,
     NAT. BIOTECHNOL., (19980300) vol. 16, no. 3, pp. 258-261.
SO
     ISSN: 1087-0156.
DT
     Journal
FS
     W3; N
LA
     English
SL
     English
     ANSWER 19 OF 22 CAPLUS COPYRIGHT 2001 ACS
L9
ΑN
     1997:467751 CAPLUS
DN
     127:76978
TΙ
     Methods for generating polynucleotides having desired
     characteristics by iterative selection and recombination
IN
     Stemmer, Willem P. C.; Crameri, Andreas
     Affymax Technologies N.V., Neth. Antilles; Stemmer, Willem P. C.;
Crameri,
     Andreas
SO
     PCT Int. Appl., 208 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 8
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
     ------
                      ____
                            _____
ΡI
     WO 9720078
                            19970605
                       Α1
                                           WO 1996-US19256 19961202
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
     US 5811238
                            19980922
                                           US 1995-564955
                       Α
                                                             19951130
     US 6117679
                            20000912
                                           US 1996-621859
                       Α
                                                             19960325
    AU 9710873
                       Α1
                            19970619
                                           AU 1997-10873
                                                             19961202
    AU 713952
                       B2
                            19991216
     EP 876509
                       A1
                            19981111
                                           EP 1996-940934
```

19961202

```
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000500981
                       T2
                            20000202
                                           JP 1997-520744
                                                            19961202
     AU 9923816
                       A1
                            19990812
                                           AU 1999-23816
                                                            19990416
PRAI US 1995-564955
                            19951130
                       Α
     US 1996-621859
                       Α2
                            19960325
     US 1994-198431
                       A2
                            19940217
     AU 1995-29714
                       Α3
                            19950217
     US 1996-537874
                       Α2
                            19960304
     WO 1996-US19256
                       W
                            19961202
L9
     ANSWER 20 OF 22 BIOSIS COPYRIGHT 2001 BIOSIS
                                                        DUPLICATE 4
ΑN
     1996:154060 BIOSIS
DN
     PREV199698726195
ΤI
     The role of non-catalytic binding subsites in the endonuclease activity
of
     bovine pancreatic ribonuclease A.
ΑU
     Moussaoui, Mohamed; Guasch, Alicia; Boix, Ester; Cuchillo, Claudi M.;
     Nogues, Victoria (1)
CS
     (1) Dep. de Bioquimica Biol. Mol., Fac. de Ciencies, Univ. Autonoma de
     Barcelona, 08193 Bellaterra Spain
SO
     Journal of Biological Chemistry, (1996) Vol. 271, No. 9, pp. 4687-4692.
     ISSN: 0021-9258.
DT
     Article
     English
LA
L9
     ANSWER 21 OF 22 CAPLUS COPYRIGHT 2001 ACS
AN
     1995:863720 CAPLUS
DN
TI
     Shuffling mutagenesis using pools of randomly-fragmented target
     DNA, PCR reassembly and in vitro and in vivo recombination in the
creation
     of large libraries
ΙN
     Stemmer, Willem P. C.; Crameri, Andreas
PA
     Affymax Technologies N.V., Neth.
SO
     PCT Int. Appl., 119 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 8
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
     _____
                     ----
                                          -----
ΡI
     WO 9522625
                     A1 19950824
                                         WO 1995-US2126 19950217
        W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI,
            GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG,
            MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT,
            UA, UG
        RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
            LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
            SN, TD, TG
     US 5605793
                           19970225
                                          US 1994-198431
                      Α
                                                           19940217
    CA 2182393
                      AA
                           19950824
                                          CA 1995-2182393
                                                           19950217
    AU 9529714
                      A1'
                           19950904
                                          AU 1995-29714
                                                           19950217
    AU 703264
                      B2
                           19990325
                                          EP 1995-911826
    EP 752008
                      A1
                           19970108
                                                          19950217
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,
SE
    CN 1145641
                      Α
                           19970319
                                          CN 1995-191679
                                                           19950217
     JP 10500561
                      Т2
                           19980120
                                          JP 1995-521977
                                                           19950217
    EP 934999
                           19990811
                      A1
                                          EP 1998-122040
                                                           19950217
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
ΙE
```

```
JP 2001057893
                       Α2
                            20010306
                                           JP 2000-201673
                                                             19950217
     EP 1094108
                       Α2
                            20010425
                                           EP 2001-100962
                                                             19950217
     EP 1094108
                       ΑЗ
                            20010509
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
ΙE
     US 5830721
                            19981103
                                           US 1996-537874
                       Α
                                                             19960304
     AU 9923816
                            19990812
                       A1
                                           AU 1999-23816
                                                             19990416
PRAI US 1994-198431
                       A2
                            19940217
     AU 1995-29714
                       Α3
                            19950217
     EP 1995-911826
                       A3
                            19950217
     JP 1995-521977
                       A3
                            19950217
     WO 1995-US2126
                       W
                            19950217
     ANSWER 22 OF 22 BIOSIS COPYRIGHT 2001 BIOSIS
T.9
     1983:183559 BIOSIS
ΑN
     BA75:33559
DN
TI
     ISOLATION AND CHARACTERIZATION OF AN ESCHERICHIA-COLI MUTANT LACKING
     TRANSFER RNA GUANINE TRANS GLYCOSYLASE FUNCTION AND BIOSYNTHESIS OF
     QUEUOSINE IN TRANSFER RNA.
ΑU
     NOGUCHI S; NISHIMURA Y; HIROTA Y; NISHIMURA S
CS
     BIOL. DIV., NATL. CANCER CENT. RES. INST., CHUO-KU, TOKYO.
     J BIOL CHEM, (1982) 257 (11), 6544-6550.
     CODEN: JBCHA3. ISSN: 0021-9258.
FS
     BA; OLD
LA
     English
=> s 15 and PCR
           695 L5 AND PCR
=> s 110 and error prone
           123 L10 AND ERROR PRONE
=> dup rem 111
PROCESSING COMPLETED FOR L11
             42 DUP REM L11 (81 DUPLICATES REMOVED)
=> d 112 1-20
L12 ANSWER 1 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS
                                                        DUPLICATE 1
ΑN
     2001:180415 BIOSIS
DN
     PREV200100180415
TΙ
     Altering catalytic properties of 3-chlorocatechol-oxidizing extradiol
     dioxygenase from Sphingomonas xenophaga BN6 by random
     mutagenesis.
ΑU
     Riegert, Ulrich; Buerger, Sibylle; Stolz, Andreas (1)
CS
     (1) Institut fuer Mikrobiologie, Universitaet Stuttgart, 70569,
Stuttgart:
     Andreas.Stolz@PO.Uni-Stuttgart.DE Germany
SO
     Journal of Bacteriology, (April, 2001) Vol. 183, No. 7, pp. 2322-2330.
     print.
     ISSN: 0021-9193.
DT
     Article
LA
     English
SL
     English
L12 ANSWER 2 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS
                                                        DUPLICATE 2
AN
     2001:152195 BIOSIS
DN
    PREV200100152195
TΙ
    Multiple roles of Arf1 GTPase in the yeast exocytic and endocytic
     pathways.
```

Yahara, Natsuko; Ueda, Takashi; Sato, Ken; Nakano, Akihiko (1) ΑU (1) Molecular Membrane Biology Laboratory, RIKEN, 2-1, Wako, Saitama, CS 351-0198: nakano@postman.riken.go.jp Japan SO Molecular Biology of the Cell, (January, 2001) Vol. 12, No. 1, pp. 221-238. print. ISSN: 1059-1524. DT Article LΑ English SLEnglish L12 ANSWER 3 OF 42 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.DUPLICATE 3 ΑN 2001158766 EMBASE Improvement of the optimum temperature of lipase activity for Rhizopus niveus by random mutagenesis and its structural interpretation. ΑU Kohno M.; Enatsu M.; Funatsu J.; Yoshiizumi M.; Kugimiya W. M. Kohno, Central Research Institute, Tsukuba R and D Center, Fuji Oil CS Co. Ltd., 4-3 Kinunodai, Yawara-Mura, Tsukuba-gun, Ibaraki 300-2497, Japan. kouno@mail.tkc.fujioil.co.jp SO Journal of Biotechnology, (18 May 2001) 87/3 (203-210). Refs: 14 ISSN: 0168-1656 CODEN: JBITD4 S 0168-1656(01)00243-7 CYNetherlands DT Journal; Article FS Microbiology 029 Clinical Biochemistry LA English SLEnglish L12 ANSWER 4 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 4 ΑN 2001:140270 BIOSIS DN PREV200100140270 ΤI Analysis of the amino terminus of maize branching enzyme II by polymerase chain reaction random mutagenesis. ΑU Hong, Seokjoo; Mikkelsen, Rene; Preiss, Jack (1) CS (1) Michigan State University, Room 201, Biochemistry Building, East Lansing, MI, 48824: preiss@pilot.msu.edu USA SO Archives of Biochemistry and Biophysics, (February 1, 2001) Vol. 386, No. 1, pp. 62-68. print. ISSN: 0003-9861. DΤ Article LA English SLEnglish L12ANSWER 5 OF 42 CAPLUS COPYRIGHT 2001 ACS AN 2000:736184 CAPLUS DN 133:291923 TΙ Methods of shuffling polynucleotides by fragmentation and multi-cyclic extension ΤN Stemmer, Willem P. C. PΑ Maxygen, Inc., USA SO U.S., 61 pp. CODEN: USXXAM DTPatent LA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE

\_\_\_\_\_

US 6132970

PΙ

\_\_\_\_

A 20001017

\_\_\_\_\_\_

US 1998-100856 19980619

```
187
RE.CNT
RE
(2) Andersson; PNAS 1996, V93, P906 CAPLUS
(3) Anon; EP 552266 CAPLUS
(4) Anon; EP 0252666 B1 1988 CAPLUS
(5) Anon; WO 9007576 1990 CAPLUS
(6) Anon; WO 9014424 1990 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 6 OF 42 CAPLUS COPYRIGHT 2001 ACS
ΑN
     2000:639148 CAPLUS
     133:233552
DN
ΤT
     Methods for generating polynucleotides having desired characteristics by
     iterative selection and recombination .
ΙN
     Stemmer, Willem P. C.
PA
     Maxygen, Inc., USA
     U.S., 106 pp., Cont.-in-part of U.S. 5,811,238.
SO
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 8
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
                                           ______
ΡI
     US 6117679
                                           US 1996-621859
                       Α
                            20000912
                                                             19960325
     US 5811238
                       Α
                            19980922
                                           US 1995-564955
                                                             19951130
     US 5837458
                            19981117
                                           US 1996-650400
                       Α
                                                             19960520
     CA 2239099
                            19970605
                       AΑ
                                           CA 1996-2239099
                                                            19961202
     WO 9720078
                       Α1
                            19970605
                                           WO 1996-US19256
                                                            19961202
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
         W:
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
    AU 9710873
                            19970619
                       Α1
                                           AU 1997-10873
                                                             19961202
    AU 713952
                            19991216
                       В2
     EP 876509
                       Α1
                            19981111
                                           EP 1996-940934
                                                             19961202
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
    EP 911396
                       A2
                            19990428
                                           EP 1998-122014
                                                             19961202
    EP 911396
                       А3
                            19990506
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000500981
                       T2
                            20000202
                                           JP 1997-520744
                                                             19961202
     JP 2000308490
                       A2
                            20001107
                                           JP 1999-267847
                                                             19961202
    EP 1103606
                       A2
                            20010530
                                           EP 2001-103198
                                                            19961202
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
    WO 9735966
                            19971002
                                           WO 1997-US4715
                       Α1
                                                            19970320
            AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, US,
            UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
            GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
            ML, MR, NE, SN, TD, TG
    AU 9725426
                      A1
                          19971017
                                           AU 1997-25426
                                                            19970320
    EP 906418
                       Α1
                            19990407
                                           EP 1997-916943
                                                            19970320
```

```
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000507444
                        T2
                             20000620
                                             JP 1997-534527
                                                              19970320
     US 6165793
                        Α
                             20001226
                                            US 1998-75511
                                                              19980508
     US 6180406
                        В1
                             20010130
                                            US 1998-99015
                                                              19980617
     AU 9923816
                        Α1
                             19990812
                                            AU 1999-23816
                                                              19990416
PRAI US 1995-564955
                        A2
                             19951130
     US 1994-198431
                        A2
                             19940217
     AU 1995-29714
                        А3
                             19950217
     US 1995-425684
                        Α2
                             19950418
     US 1996-537874
                        Α2
                             19960304
     US 1996-621430
                        B2
                             19960325
     US 1996-621859
                        Α
                             19960325
     US 1996-650400
                        A2
                             19960520
     EP 1996-940934
                        A3
                             19961202
     JP 1997-520744
                        A3
                             19961202
     WO 1996-US19256
                        W
                             19961202
     WO 1997-US4715
                        W
                             19970320
RE.CNT
       201
(1) Andersson; PNAS 1996, V93, P906 CAPLUS
(2) Anon; EP 552266 CAPLUS
(3) Anon; EP 252666 B1 1988 CAPLUS
(4) Anon; WO 9007576 1990 CAPLUS
(5) Anon; WO 9014430 1990 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 7 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS
     2000:352820 BIOSIS
DN
     PREV200000352820
     The antiactivator TraM interferes with the autoinducer-dependent binding
TΙ
     of TraR to DNA by interacting with the C-terminal region of the
     quorum-sensing activator.
ΑU
     Luo, Zhao-Qing; Qin, Yinping; Farrand, Stephen K. (1)
     (1) Dept. of Crop Sciences, University of Illinois at Urbana-Champaign,
     1201 West Gregory Dr., 240 Edward R. Madigan Laboratory, Urbana, IL,
61801
     USA
SO
     Journal of Biological Chemistry, (March 17, 2000) Vol. 275, No. 11, pp.
     7713-7722. print.
     ISSN: 0021-9258.
DT
     Article
LA
     English
SL
     English
     ANSWER 8 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS
L12
                                                         DUPLICATE 5
AN
     2000:346140 BIOSIS
DN
     PREV200000346140
ΤI
     Phosphorylation of nucleosides by the mutated acid phosphatase from
     Morganella morganii.
     Mihara, Yasuhiro (1); Utagawa, Takashi; Yamada, Hideaki; Asano, Yasuhisa
ΑU
     (1) Applied Microbiology Laboratory, Fermentation and Biotechnology
CS
     Laboratories, Ajinomoto Co., Inc., 1-1, Suzuki-cho, Kawasaki-ku,
     Kawasaki-shi, 210-8681 Japan
     Applied and Environmental Microbiology, (July, 2000) Vol. 66, No. 7, pp.
SO
     2811-2816. print.
     ISSN: 0099-2240.
DT
     Article
LA
     English
SL
     English
```

- L12 ANSWER 9 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 6
- AN 2000:254413 BIOSIS
- DN PREV200000254413
- TI Functional assay for BRCAl: Mutagenesis of the COOH-terminal region reveals critical residues for transcription activation.
- AU Hayes, Finbarr; Cayanan, Charmagne; Barilla, Daniela; Monteiro, Alvaro N.A. (1)
- $\ensuremath{\mathsf{CS}}$  (1) Laboratory of Molecular Oncology, Strang Cancer Prevention Center, The
  - Rockefeller University, 1230 York Avenue, New York, NY, 10021 USA
- SO Cancer Research, (May 1, 2000) Vol. 60, No. 9, pp. 2411-2418. print.. ISSN: 0008-5472.
- DT Article
- LA English
- SL English
- L12 ANSWER 10 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 7
- AN 2000:153384 BIOSIS
- DN PREV200000153384
- TI Quantitative analysis of the effect of the mutation frequency on the affinity maturation of single chain Fv antibodies.
- AU Daugherty, Patrick S.; Chen, Gang; Iverson, Brent L. (1); Georgiou, George
  - (1)
- ${\sf CS}$  (1) Institute for Cell and Molecular Biology, University of Texas, Austin,
  - TX, 78712 USA
- SO Proceedings of the National Academy of Sciences of the United States of America., (Feb. 29, 2000) Vol. 97, No. 5, pp. 2029-2034. ISSN: 0027-8424.
- DT Article
- LA English
- SL English
- L12 ANSWER 11 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS
- AN 2000:451438 BIOSIS
- DN PREV200000451438
- TI High-density mutagenesis by combined DNA shuffling and phage display to assign essential amino acid residues in protein-protein interactions: Application to study structure-function of plasminogen activation inhibitor 1 (PAI-1.
- AU Stoop, A. Allart; Jespers, Laurent; Lasters, Ignace; Eldering, Eric; Pannekoek, Hans (1)
- CS (1) Department of Biochemistry, Academic Medical Center, University of Amsterdam, Amsterdam Netherlands
- SO Journal of Molecular Biology, (1 September, 2000) Vol. 301, No. 5, pp. 1135-1147. print. ISSN: 0022-2836.
- DT Article
- LA English
- SL English
- L12 ANSWER 12 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 8
- AN 2000:346911 BIOSIS
- DN PREV200000346911
- TI High-level expression of a polypeptides encoded by a large segment of the envelope gene of HIV-1 in E. coli by directed evolution.
- AU Zhang, Yongshu (1); Zhao, Zhihu; Li, Fuguang; Cao, Cheng; Liu, Chuanxuan; Ma, Oingjun
- CS (1) Molecular Genetics Key Laboratory, Institute of Biotechnology, Beijing

China Biotechnology Letters, (June, 2000) Vol. 22, No. 11, pp. 947-950. print. SO ISSN: 0141-5492. DT Article English LA SL English L12ANSWER 13 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 9 2000:370396 BIOSIS AN DN PREV200000370396 ΤI Modeling DNA mutation and recombination for directed evolution experiments. ΑU Moore, Gregory L.; Maranas, Costas D. (1) CS (1) Department of Chemical Engineering, Pennsylvania State University, University Park, PA, 16802 USA SO Journal of Theoretical Biology, (7 August, 2000) Vol. 205, No. 3, pp. 483-503. print. ISSN: 0022-5193. DT Article LA English SL English L12 ANSWER 14 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 10 AN 2001:163443 BIOSIS DN PREV200100163443 ΤI Error-prone PCR of Vitreoscilla hemoglobin (VHb) to support the growth of microaerobic Escherichia coli. AU Andersson, Charlotte I. J.; Holmberg, Niklas; Farres, Judith; Bailey, James E.; Bulow, Leif; Kallio, Pauli T. (1) (1) Institute of Biotechnology, ETH-Zurich, CH-8093, Zurich: CS paulikal@biotech.biol.ethz.ch Switzerland SO Biotechnology and Bioengineering, (November 20, 2000) Vol. 70, No. 4, pp. 446-455. print. ISSN: 0006-3592. DTArticle LA English SL English L12 ANSWER 15 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 11 2000:524957 BIOSIS ΑN PREV200000524957 DN TΙ Directed evolution to improve the thermostability of prolyl endopeptidase. ΑU Uchiyama, Hidefumi (1); Inaoka, Tetsuya; Ohkuma-Soyejima, Toyomi; Togame, Hiroko; Shibanaka, Yasuhiko; Yoshimoto, Tadashi; Kokubo, Toshio CS (1) Department of Biological Science and Technology, Science University of Tokyo, 2641 Yamazaki, Noda, Chiba, 278-8510 Japan SO Journal of Biochemistry (Tokyo), (Sep., 2000) Vol. 128, No. 3, pp. 441-447. print. ISSN: 0021-924X. DТ Article LA English SL English L12 ANSWER 16 OF 42 CAPLUS COPYRIGHT 2001 ACS ΑN 2000:119638 CAPLUS DN 132:275952 ΤI Enantioselective enzymes for organic synthesis created by directed evolution

ΑU

Reetz, Manfred T.; Jaeger, Karl-Erich

```
Germany
SO
     Chem.--Eur. J. (2000), 6(3), 407-412
     CODEN: CEUJED; ISSN: 0947-6539
PB
     Wiley-VCH Verlag GmbH
DT
     Journal
LA
     English
RE.CNT 65
(1) Affholter, J; CHEMTECH 1999, V29, P34 CAPLUS
(7) Arnold, F; Acc Chem Res 1998, V31, P125 CAPLUS
(8) Benkovic, S; Science 1988, V239, P1105 CAPLUS
(9) Bornscheuer, U; Biotechnol Bioeng 1998, V58, P554 CAPLUS
(11) Bryan, P; Biotechnol Adv 1987, V5, P221 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12 ANSWER 17 OF 42 CAPLUS COPYRIGHT 2001 ACS
     2000:552862 CAPLUS
DN
     133:263028
     Isolation of directed evolution mutants of chloroperoxidase resistant to
TΙ
     suicide inactivation by primary olefins
ΑU
     Rai, Gyan P.; Zong, Qin; Hager, Lowell P.
     Department of Biochemistry, Roger Adams Laboratory, University of
CS
     Illinois, Urbana, IL, 61801, USA
SO
     Isr. J. Chem. (2000), 40(1), 63-70
     CODEN: ISJCAT; ISSN: 0021-2148
PB
     Laser Pages Publishing
DТ
     Journal
T.A
     English
RE.CNT 44
(2) Allenmark, S; Tetrahedron: Asymmetry 1996, V7, P1089 CAPLUS
(3) Casella, L; Biochemistry 1994, V33, P6377 CAPLUS
(5) Colonna, S; Biochemistry 1990, V29, P10465 CAPLUS
(6) Colonna, S; Tetrahedron: Asymmetry 1992, V3, P95 CAPLUS
(7) Corbett, M; Biochem J 1979, V183, P269 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12
    ANSWER 18 OF 42 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1999:669460 CAPLUS
DN
     132:32484
     New strategies of protein engineering - directed evolution of enzyme in
TI
ΑU
     Zhang, Hongying; Kong, Xiangduo; Zhang, Jin
     State Key Laboratory of Enzyme Engineering, Jilin University, Changchun,
CS
     130023, Peop. Rep. China
SO
     Chin. Sci. Bull. (1999), 44(18), 1641-1648
     CODEN: CSBUEF; ISSN: 1001-6538
РΒ
     Science in China Press
DT
     Journal; General Review
LA
     English
RE.CNT 54
RE
(1) Arnold, F; Chemical Eng Sci 1996, V51, P5091 CAPLUS
(2) Back, K; Proc Natl Acad Sci USA 1996, V93, P6841 CAPLUS
(3) Ballinger, M; Biochem 1996, V35, P13579 CAPLUS
(5) Black, M; Proc Natl Acad Sci USA 1996, V93, P3525 CAPLUS
(8) Cerdan, P; Eur J Biochem 1995, V229, P113 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
```

L12 ANSWER 19 OF 42 CAPLUS COPYRIGHT 2001 ACS

Max-Planck-Institut fur Kohlenforschung, Mulheim an der Ruhr, 45470,

CS

```
ΑN
     1999:808055 CAPLUS
DN
     132:132883
ΤI
     Random mutagenesis libraries: optimization and
     simplification by PCR
     Xu, Hao; Petersen, Evamaria I.; Petersen, Steffen B.; El-Gewely, M.
ΑIJ
Raafat
CS
     University of Tromso, Tromso, 9037, Norway
     BioTechniques (1999), 27(6), 1102, 1104, 1106, 1108
SO
     CODEN: BTNQDO; ISSN: 0736-6205
     Eaton Publishing Co.
PΒ
     Journal
DT
LA
     English
RE.CNT 20
RE
(1) Cadwell, R; PCR Methods Appl 1992, V2, P28 CAPLUS
(2) Copeland, W; J Biol Chem 1993, V268, P11041 CAPLUS
(3) El-Gewely, M; Nat Biotechnol 1999, V17, P210 CAPLUS
(4) Fenton, C; Biochem Biophys Res Commun 1998, V242, P71 CAPLUS
(5) Fromant, M; Anal Biochem 1995, V224, P347 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L12 ANSWER 20 OF 42 BIOSIS COPYRIGHT 2001 BIOSIS
                                                         DUPLICATE 12
     1999:145784 BIOSIS
DN
     PREV199900145784
     Random mutagenesis by recombinational capture of
     PCR products in Bacillus subtilis and Acinetobacter calcoaceticus.
AII
     Melnikov, Alexandre; Youngman, Philip J. (1)
CS
     (1) Millennium Pharmaceuticals Inc., Cambridge, MA 02139-4815 USA
SO
     Nucleic Acids Research, (Feb. 15, 1999) Vol. 27, No. 4, pp. 1056-1062.
     ISSN: 0305-1048.
DT
     Article
     English
LA
=> s 17 and 110
L13
             8 L7 AND L10
=> d 113 1-8
L13 ANSWER 1 OF 8 LIFESCI
                               COPYRIGHT 2001 CSA
     1998:63865 LIFESCI
     Molecular evolution by staggered extension process (StEP) in vitro
TI
     recombination
     Zhao, Huimin; Giver, L.; Shao, Zhixin; Affholter, J.A.; Arnold, F.H.*
ΑU
     Div. Chem. and Chem. Eng., California Inst. Technol., Pasadena, CA 91125,
CS
SO
     NAT. BIOTECHNOL., (19980300) vol. 16, no. 3, pp. 258-261.
     ISSN: 1087-0156.
DΤ
     Journal
FS
     W3; N
LA
     English
SL
     English
L13
    ANSWER 2 OF 8 CAPLUS COPYRIGHT 2001 ACS
AN
     2001:137366 CAPLUS
DN
     134:188966
TI
     Method for random mutagenesis and amplification of
     nucleic acid
ΙN
    Lietz, Eric
PΑ
     Genopsys, USA
SO
     PCT Int. Appl., 60 pp.
```

```
CODEN: PIXXD2
DT
     Patent
     English
LA
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO.
                                                            DATE
                     _____
                           _____
                                           -----
                                                            _____
                      A1
ΡI
     WO 2001012802
                            20010222
                                          WO 2000-US22078 20000811
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     A1 19990813
PRAI US 1999-374274
RE.CNT 13
(1) Crea, R; WO 9115581 A 1991 CAPLUS
(3) Ge, L; BIOTECHNIQUES 1997, V22(1), P28 CAPLUS
(4) Horton, R; GENE 1989, V77, P61 CAPLUS
(5) Joyce, G; NUCLEIC ACIDS RESEARCH 1989, V17(2), P711 CAPLUS
(6) Landt, O; GENE 1990, V96, P125 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L13 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2001 ACS
     2000:736184 CAPLUS
ΑN
DN
     133:291923
TΙ
     Methods of shuffling polynucleotides by fragmentation and
     multi-cyclic extension
ΙN
     Stemmer, Willem P. C.
     Maxygen, Inc., USA
PA
SO
     U.S., 61 pp.
     CODEN: USXXAM
DT
     Patent
T.A
     English
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO. DATE
     -----
                      ----
                                           _______
     US 6132970
                     A
                            20001017
                                          US 1998-100856 19980619
RE.CNT 187
(2) Andersson; PNAS 1996, V93, P906 CAPLUS
(3) Anon; EP 552266 CAPLUS
(4) Anon; EP 0252666 B1 1988 CAPLUS
(5) Anon; WO 9007576 1990 CAPLUS
(6) Anon; WO 9014424 1990 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 4 OF 8 CAPLUS COPYRIGHT 2001 ACS
L13
ΑN
     2000:639148 CAPLUS
DN
     133:233552
TI
     Methods for generating polynucleotides having desired
     characteristics by iterative selection and recombination
     Stemmer, Willem P. C.
IN
    Maxygen, Inc., USA
PA
SO
     U.S., 106 pp., Cont.-in-part of U.S. 5,811,238.
     CODEN: USXXAM
DT
     Patent
```

LΑ

English

```
FAN.CNT 8
     PATENT NO.
                        KIND DATE
                                              APPLICATION NO.
                                                                DATE
                              _____
PΙ
     US 6117679
                         Α
                              20000912
                                              US 1996-621859
                                                                 19960325
     US 5811238
                         Α
                              19980922
                                              US 1995-564955
                                                                 19951130
     US 5837458
                              19981117
                                              US 1996-650400
                         Α
                                                                 19960520
     CA 2239099
                         AA
                              19970605
                                              CA 1996-2239099
                                                                19961202
     WO 9720078
                              19970605
                                              WO 1996-US19256
                         Α1
                                                               19961202
              AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
              DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
              RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
              AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
          RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
              IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
              MR, NE, SN, TD, TG
     AU 9710873
                         Α1
                              19970619
                                              AU 1997-10873
                                                                19961202
     AU 713952
                         В2
                              19991216
     EP 876509
                         Α1
                              19981111
                                              EP 1996-940934
                                                                19961202
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI
     EP 911396
                         Α2
                              19990428
                                              EP 1998-122014
                                                                19961202
                            19990506
     EP 911396
                         ΑЗ
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI
     JP 2000500981
                         T2
                              20000202
                                              JP 1997-520744
                                                                19961202
     JP 2000308490
                        A2
                              20001107
                                              JP 1999-267847
                                                                19961202
     EP 1103606
                        A2
                              20010530
                                            EP 2001-103198
                                                              19961202
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI
     WO 9735966
                        Α1
                              19971002
                                              WO 1997-US4715
                                                                19970320
             AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
              DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
              LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
         RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
              GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
             ML, MR, NE, SN, TD, TG
     AU 9725426
                            19971017
                        Α1
                                              AU 1997-25426
                                                                19970320
     EP 906418
                        Α1
                              19990407
                                              EP 1997-916943
                                                                19970320
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, FI
     JP 2000507444
                        T2
                              20000620
                                              JP 1997-534527
                                                                19970320
     US 6165793
                        Α
                              20001226
                                              US 1998-75511
                                                                19980508
     US 6180406
                        В1
                              20010130
                                              US 1998-99015
                                                                19980617
     AU 9923816
                        Α1
                              19990812
                                              AU 1999-23816
                                                                19990416
PRAI US 1995-564955
                        A2
                              19951130
     US 1994-198431
                        A2
                              19940217
     AU 1995-29714
                        A3
                              19950217
     US 1995-425684
                        Α2
                              19950418
     US 1996-537874
                        A2
                              19960304
     US 1996-621430
                        В2
                              19960325
     US 1996-621859
                        Α
                              19960325
     US 1996-650400
                        A2
                              19960520
     EP 1996-940934
                        A3
                              19961202
     JP 1997-520744
                        A3
                              19961202
     WO 1996-US19256
                        W
                              19961202
     WO 1997-US4715
                        W
                             19970320
RE.CNT 201
RE
```

```
(1) Andersson; PNAS 1996, V93, P906 CAPLUS
(2) Anon; EP 552266 CAPLUS
(3) Anon; EP 252666 B1 1988 CAPLUS
(4) Anon; WO 9007576 1990 CAPLUS
(5) Anon; WO 9014430 1990 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 5 OF 8 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1998:672658 CAPLUS
DN
     129:271526
ΤI
     Recombination of polynucleotide sequences using random
     or defined primers
ΙN
     Arnold, Frances H.; Shao, Zhixin; Affholter, Joseph A.; Zhao, Huimin;
     Giver, Lorraine J.
PA
     California Institute of Technology, USA
SO
     PCT Int. Appl., 78 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 3
     PATENT NO.
                      KIND DATE
                                          APPLICATION NO.
                                                           DATE
     -----
                      ----
                           -----
                                          _____
     WO 9842832
                           19981001
PΤ
                     A1
                                         WO 1998-US5956 19980325
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,
             LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
             PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,
             UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,
             FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,
             GA, GN, ML, MR, NE, SN, TD, TG
     US 6153410
                           20001128
                                          US 1997-905359
                                                           19970804
                     Α
     AU 9869420
                      A1
                           19981020
                                          AU 1998-69420
                                                           19980325
     AU 724698
                           20000928
                      B2
     EP 920496
                      A1
                           19990609
                                          EP 1998-915171
                                                           19980325
           AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     BR 9804791
                           19990817
                                          BR 1998-4791
                      Α
                                                           19980325
     JP 2000511783
                      Т2
                           20000912
                                          JP 1998-545987
                                                           19980325
PRAI US 1997-41666
                      Р
                           19970325
     US 1997-45211
                      Р
                           19970430
     US 1997-46256
                      Ρ
                           19970512
     US 1997-905359
                      Α
                           19970804
     US 1997-905058
                      B2 19970801
                           19980325
     WO 1998-US5956
                      W
L13
    ANSWER 6 OF 8 CAPLUS COPYRIGHT 2001 ACS
AN
     1998:66014 CAPLUS
DN
     128:124509
     Method of DNA shuffling with polynucleotides produced by
TΙ
     blocking or interrupting a synthesis or amplification process
ΙN
     Short, Jay M.
PA
     Recombinant Biocatalysis, Inc., USA; Short, Jay M.
SO
     PCT Int. Appl., 80 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 15
                     KIND DATE
     PATENT NO.
                                          APPLICATION NO.
                                          ------
PΙ
    WO 9801581
                     A1
                           19980115
                                          WO 1997-US12239 19970709
```

```
AU, CA, IL, JP, US
         RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,
SE
     US 5965408
                             19991012
                                            US 1996-677112
                                                              19960709
                       Α
     CA 2259628
                       AA
                             19980115
                                            CA 1997-2259628
                                                              19970709
     AU 9736626
                       Α1
                             19980202
                                            AU 1997-36626
                                                              19970709
     EP 1007727
                       Α1
                             20000614
                                            EP 1997-933438
                                                              19970709
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000514651
                        T2
                             20001107
                                            JP 1998-505366
                                                              19970709
PRAI US 1996-677112
                       Α2
                             19960709
     WO 1997-US12239
                             19970709
L13
     ANSWER 7 OF 8 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1997:467751 CAPLUS
DN
     127:76978
ΤI
     Methods for generating polynucleotides having desired
     characteristics by iterative selection and recombination
IN
     Stemmer, Willem P. C.; Crameri, Andreas
     Affymax Technologies N.V., Neth. Antilles; Stemmer, Willem P. C.;
Crameri,
     Andreas
SO
     PCT Int. Appl., 208 pp.
     CODEN: PIXXD2.
ייית
     Patent
LA
     English
FAN.CNT 8
     PATENT NO.
                      KIND
                            DATE
                                            APPLICATION NO.
                                                             DATE
                                            -----
                             -----
PΙ
     WO 9720078
                             19970605
                       Α1
                                            WO 1996-US19256 19961202
         W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
     US 5811238
                             19980922
                                            US 1995-564955
                       Α
                                                             19951130
     US 6117679
                       Α
                             20000912
                                            US 1996-621859
                                                             19960325
     AU 9710873
                       A1
                            19970619
                                            AU 1997-10873
                                                             19961202
                             19991216
     AU 713952
                       B2
     EP 876509
                       Α1
                            19981111
                                            EP 1996-940934
                                                             19961202
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2000500981
                       T2
                            20000202
                                            JP 1997-520744
                                                             19961202
     AU 9923816
                       A1
                             19990812
                                            AU 1999-23816
                                                             19990416
PRAI US 1995-564955
                       Α
                             19951130
     US 1996-621859
                       A2
                             19960325
     US 1994-198431
                       A2
                            19940217
     AU 1995-29714
                       A3
                            19950217
                             19960304
     US 1996-537874
                       A2
     WO 1996-US19256
                       W
                            19961202
L13
     ANSWER 8 OF 8 CAPLUS COPYRIGHT 2001 ACS
ΑN
     1995:863720 CAPLUS
DN
     123:248553
TΙ
     Shuffling mutagenesis using pools of randomly-fragmented target
     DNA, PCR reassembly and in vitro and in vivo recombination in
     the creation of large libraries
     Stemmer, Willem P. C.; Crameri, Andreas
IN
```

```
PΑ
     Affymax Technologies N.V., Neth.
SO
     PCT Int. Appl., 119 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 8
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                             DATE
                                           -----
                            19950824
                                           WO 1995-US2126
PΤ
     WO 9522625
                      A1
                                                             19950217
             AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI,
             GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG,
             MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT,
             UA, UG
         RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
             LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
             SN, TD, TG
     US 5605793
                       Α
                            19970225
                                           US 1994-198431
                                                             19940217
     CA 2182393
                       AΑ
                            19950824
                                           CA 1995-2182393
                                                             19950217
     AU 9529714
                       Α1
                            19950904
                                           AU 1995-29714
                                                             19950217
     AU 703264
                       В2
                            19990325
     EP 752008
                       A1
                            19970108
                                           EP 1995-911826
                                                             19950217
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,
SE
                            19970319
     CN 1145641
                       Α
                                           CN 1995-191679
                                                             19950217
                            19980120
     JP 10500561
                       T2
                                           JP 1995-521977
                                                             19950217
     EP 934999
                       Α1
                            19990811
                                           EP 1998-122040
                                                             19950217
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
TF.
     JP 2001057893
                       A2
                            20010306
                                           JP 2000-201673
                                                             19950217
     EP 1094108
                       A2
                            20010425
                                           EP 2001-100962
                                                             19950217
     EP 1094108
                       A3
                            20010509
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
TE
     US 5830721
                       Α
                            19981103
                                           US 1996-537874
                                                             19960304
     AU 9923816
                       Α1
                            19990812
                                           AU 1999-23816
                                                             19990416
PRAI US 1994-198431
                       A2
                            19940217
     AU 1995-29714
                       А3
                            19950217
     EP 1995-911826
                       А3
                            19950217
     JP 1995-521977
                       Α3
                            19950217
     WO 1995-US2126
                            19950217
                       W
=> FIL MEDLINE
COST IN U.S. DOLLARS
                                                 SINCE FILE
                                                                 TOTAL
                                                      ENTRY
                                                                SESSION
FULL ESTIMATED COST
                                                       88.30
                                                                  88.45
```

FILE 'MEDLINE' ENTERED AT 16:43:29 ON 19 JUN 2001

FILE LAST UPDATED: 18 JUN 2001 (20010618/UP). FILE COVERS 1958 TO DATE.

On April 22, 2001, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE now contains new records from the former NLM HEALTH STAR database. These records have an Entry Date and Update Date of 20010223.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2001 vocabulary. Enter HELP THESAURUS for details.

The OLDMEDLINE file segment now contains data from 1958 through 1965. Enter HELP CONTENT for details.

Left, right, and simultaneous left and right truncation are available in the Basic Index. See HELP SFIELDS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

```
=> E CARLSSON R/AU 25
             4
                   CARLSSON P S/AU
             2
Ε2
                   CARLSSON P U/AU
E.3
            70 --> CARLSSON R/AU
E4
             8
                   CARLSSON R M/AU
E5
             6
                   CARLSSON R N/AU
Ε6
           100
                   CARLSSON S/AU
E7
            15
                   CARLSSON S A/AU
E8
            61
                   CARLSSON S G/AU
E9
            1
                   CARLSSON S M/AU
E10
            33
                   CARLSSON S R/AU
E11
            1
                   CARLSSON S S/AU
                  CARLSSON SKWIRUT C/AU
E12
            19
E13
            14
                   CARLSSON T/AU
            80
F.14
                   CARLSSON U/AU
E15
            7
                   CARLSSON U S/AU
E16
             2
                   CARLSSON V A/AU
E17
            2
                   CARLSTEAD K/AU
E18
            11
                   CARLSTEDT A/AU
E19
            13
                   CARLSTEDT B C/AU
E20
                   CARLSTEDT C/AU
            1
E21
             9
                   CARLSTEDT C A/AU
E22
            17
                   CARLSTEDT DUKE B/AU
                   CARLSTEDT DUKE J/AU
E23
            82
E24
             3
                   CARLSTEDT DUKE J M/AU
E25
                   CARLSTEDT E/AU
=> S (E3) AND 1997<=PY<=2000
            70 "CARLSSON R"/AU
       1750181 1997<=PY<=2000
L14
            20 ("CARLSSON R"/AU) AND 1997<=PY<=2000
=> S (E3) AND 1998<=PY<=2000
            70 "CARLSSON R"/AU
       1325029 1998<=PY<=2000
            12 ("CARLSSON R"/AU) AND 1998<=PY<=2000
L15
=> DIS L15 1- IBIB
YOU HAVE REQUESTED DATA FROM 12 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 1.80 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y) / N:Y
L15 ANSWER 1 OF 12 MEDLINE
ACCESSION NUMBER:
                    2001030765
                                   MEDLINE
DOCUMENT NUMBER:
                    20461642
                              PubMed ID: 11003812
TITLE:
                    Endoscopy-negative reflux disease.
AUTHOR:
                    Carlsson R; Holloway R H
CORPORATE SOURCE:
                    Clinical Science, AstraZeneca R&D, Molndal, S-431 83,
                    Sweden.
SOURCE:
                    BAILLIERE'S BEST PRACTICE & RESEARCH CLINICAL
                    GASTROENTEROLOGY, (2000 Oct) 14 (5) 827-37. Ref:
                    Journal code: DHW. ISSN: 1521-6918.
PUB. COUNTRY:
                    ENGLAND: United Kingdom
```

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200011

ENTRY DATE:

Entered STN: 20010322

Last Updated on STN: 20010322 Entered Medline: 20001121

L15 ANSWER 2 OF 12 MEDLINE

ACCESSION NUMBER:

2001021134 MEDLINE

DOCUMENT NUMBER:

20467345 PubMed ID: 11012774

TITLE:

Signals sustaining human immunoglobulin V gene

AUTHOR:

hypermutation in isolated germinal centre B cells. Dahlenborg K; Pound J D; Gordon J; Borrebaeck C A;

Carlsson R

CORPORATE SOURCE:

Department of Immunotechnology, Lund University, Lund,

Sweden.

SOURCE:

IMMUNOLOGY, (2000 Oct) 101 (2) 210-7.
Journal code: GH7. ISSN: 0019-2805.

PUB. COUNTRY:

ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200011

ENTRY DATE:

Entered STN: 20010322

Last Updated on STN: 20010322 Entered Medline: 20001107

L15 ANSWER 3 OF 12 MEDLINE

ACCESSION NUMBER:

2000426103 MEDLINE

DOCUMENT NUMBER:

20392304 PubMed ID: 10932154

TITLE:

Recombining germline-derived CDR sequences for creating

diverse single-framework antibody libraries.

AUTHOR:

Soderlind E; Strandberg L; Jirholt P; Kobayashi N;

Alexeiva

V; Aberg A M; Nilsson A; Jansson B; Ohlin M; Wingren C;

Danielsson L; Carlsson R; Borrebaeck C A

CORPORATE SOURCE:

BioInvent Therapeutic AB, Lund, Sweden.. es@bioinvent.com NATURE BIOTECHNOLOGY, (2000 Aug) 18 (8) 852-6.

SOURCE:

Journal code: CQ3; 9604648. ISSN: 1087-0156.

PUB. COUNTRY:

United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

200009

ENTRY DATE:

Entered STN: 20000922

Last Updated on STN: 20000922 Entered Medline: 20000914

L15 ANSWER 4 OF 12 MEDLINE

ACCESSION NUMBER:

1999349921 MEDLINE

DOCUMENT NUMBER:

99349921 PubMed ID: 10423058

TITLE:

Is the esophageal squamous epithelial barrier function

impaired in patients with gastroesophageal reflux

disease?.

AUTHOR:

Carlsson R; Fandriks L; Jonsson C; Lundell L;

Orlando R C

CORPORATE SOURCE:

Dept. of Surgery, Sahlgrenska University Hospital,

Goteborg, Sweden.

SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY, (1999 SOURCE:

May) 34 (5) 454-8.

Journal code: UCS; 0060105. ISSN: 0036-5521.

PUB. COUNTRY: Norway

(CLINICAL TRIAL)

(CONTROLLED CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199910

ENTRY DATE: Entered STN: 20000111

> Last Updated on STN: 20000111 Entered Medline: 19991029

L15 ANSWER 5 OF 12 MEDLINE

ACCESSION NUMBER: 1999332868 MEDLINE

DOCUMENT NUMBER: 99332868 PubMed ID: 10406235

TITLE: Quality of life in patients with heartburn but without

esophagitis: effects of treatment with omeprazole. COMMENT: Comment in: Am J Gastroenterol. 1999 Jul;94(7):1723-4 AUTHOR: Havelund T; Lind T; Wiklund I; Glise H; Hernqvist H; Lauritsen K; Lundell L; Pedersen S A; Carlsson R;

Junghard O; Stubberod A; Anker-Hansen O

CORPORATE SOURCE: Department of Medicine, Odense University Hospital,

Denmark.

SOURCE: AMERICAN JOURNAL OF GASTROENTEROLOGY, (1999 Jul)

94 (7) 1782-9.

Journal code: 3HE; 0421030. ISSN: 0002-9270.

United States PUB. COUNTRY:

(CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199907

ENTRY DATE: Entered STN: 19990806

> Last Updated on STN: 19990806 Entered Medline: 19990727

L15 ANSWER 6 OF 12 MEDLINE

ACCESSION NUMBER: 1999328003 MEDLINE

DOCUMENT NUMBER: 99328003 PubMed ID: 10399804

TITLE: Differences in quality of life in men and women with

ischemic heart disease. A prospective controlled study.

Westin L; Carlsson R; Erhardt L; Cantor-Graae E;

AUTHOR:

McNeil T

Department of Cardiology, University Hospital, Malmo, CORPORATE SOURCE:

Sweden.

SOURCE: SCANDINAVIAN CARDIOVASCULAR JOURNAL, (1999) 33

(3) 160-5.

Journal code: CTA; 9708377. ISSN: 1401-7431.

PUB. COUNTRY: Norway

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199909

ENTRY DATE: Entered STN: 19991005

> Last Updated on STN: 19991005 Entered Medline: 19990923

L15 ANSWER 7 OF 12 MEDLINE

ACCESSION NUMBER: 1999315249 MEDLINE

DOCUMENT NUMBER: 99315249 PubMed ID: 10383525

TITLE: On demand therapy with omeprazole for the long-term

management of patients with heartburn without

oesophagitis--a placebo-controlled randomized trial.

AUTHOR: Lind T; Havelund T; Lundell L; Glise H; Lauritsen K;

Pedersen S A; Anker-Hansen O; Stubberod A; Eriksson G;

Carlsson R; Junghard O

CORPORATE SOURCE: Department of Surgery, Karnsjukhuset, Skovde, Sweden.

SOURCE: ALIMENTARY PHARMACOLOGY AND THERAPEUTICS, (1999

Jul) 13 (7) 907-14.

Journal code: A5D; 8707234. ISSN: 0269-2813.

PUB. COUNTRY: ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

(MULTICENTER STUDY)

(CLINICAL TRIAL)

(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199908

ENTRY DATE: Entered STN: 19990827

Last Updated on STN: 19990827 Entered Medline: 19990819

L15 ANSWER 8 OF 12 MEDLINE

ACCESSION NUMBER: 1999262277 MEDLINE

DOCUMENT NUMBER: 99262277 PubMed ID: 10330279

TITLE: Co-ligation of CD44 on naive human tonsillar B cells

induces progression towards a germinal center phenotype.

AUTHOR: Ingvarsson S; Dahlenborg K; Carlsson R;

Borrebaeck C A

CORPORATE SOURCE: Department of Immunotechnology, Lund University, Box 7031,

220 07 Lund, Sweden.

SOURCE: INTERNATIONAL IMMUNOLOGY, (1999 May) 11 (5)

739-44.

Journal code: AY5; 8916182. ISSN: 0953-8178.

PUB. COUNTRY: ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199906

ENTRY DATE: Entered STN: 19990712

Last Updated on STN: 19990712 Entered Medline: 19990623

L15 ANSWER 9 OF 12 MEDLINE

ACCESSION NUMBER: 1999246128 MEDLINE

DOCUMENT NUMBER: 99246128 PubMed ID: 10231097

TITLE: Complementarity-determining region (CDR) implantation: a

theme of recombination.

AUTHOR: Soderlind E; Ohlin M; Carlsson R

CORPORATE SOURCE: BioInvent Therapeutic AB, Lund, Sweden.. es@bioinvent.com

SOURCE: IMMUNOTECHNOLOGY, (1999 Mar) 4 (3-4) 279-85.

Ref: 25

Journal code: CRO; 9511979. ISSN: 1380-2933.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, TUTORIAL)

TANGUAGE E. I. I.

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH:

199908

ENTRY DATE:

Entered STN: 19990913

Last Updated on STN: 19990913 Entered Medline: 19990831

L15 ANSWER 10 OF 12 MEDLINE

ACCESSION NUMBER:

1999044819 MEDLINE

DOCUMENT NUMBER:

99044819 PubMed ID: 9829354

TITLE:

The usefulness of a structured questionnaire in the assessment of symptomatic gastroesophageal reflux

disease.

AUTHOR:

Carlsson R; Dent J; Bolling-Sternevald E;

Johnsson F; Junghard O; Lauritsen K; Riley S; Lundell L Dept. of Surgery, Sahlgren's University Hospital,

CORPORATE SOURCE:

Goteborg,

Sweden.

SOURCE:

SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY, (1998)

Oct) 33 (10) 1023-9.

Journal code: UCS; 0060105. ISSN: 0036-5521.

PUB. COUNTRY:

Norway

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199901

ENTRY DATE:

Entered STN: 19990202

Last Updated on STN: 19990202 Entered Medline: 19990115

L15 ANSWER 11 OF 12 MEDLINE

ACCESSION NUMBER:

1999018955 MEDLINE

DOCUMENT NUMBER:

99018955 PubMed ID: 9802147

TITLE:

Serum cholesterol, lifestyle, working capacity and quality of life in patients with coronary artery disease.

Experiences from a hospital-based secondary prevention

programme.

AUTHOR:

Carlsson R

CORPORATE SOURCE:

Department of Cardiology, Malmo University Hospital, Lund

University, Sweden.

SOURCE:

SCANDINAVIAN CARDIOVASCULAR JOURNAL. SUPPLEMENT,

**(1998)** 50 1-20.

Journal code: CTB; 9711058. ISSN: 1401-7458.

PUB. COUNTRY:

Norway

(CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

199901

ENTRY DATE:

Entered STN: 19990202

Last Updated on STN: 19990202 Entered Medline: 19990119

L15 ANSWER 12 OF 12 MEDLINE

ACCESSION NUMBER:

1998241142

MEDLINE

DOCUMENT NUMBER:

98241142 PubMed ID: 9581986

TITLE:

Gastro-oesophageal reflux disease in primary care: an

international study of different treatment strategies with

omeprazole. International GORD Study Group.

AUTHOR:

Carlsson R; Dent J; Watts R; Riley S; Sheikh R;

Hatlebakk J; Haug K; de Groot G; van Oudvorst A; Dalvag A;

Junghard O; Wiklund I

Department of Surgery, Sahlgren's University Hospital, CORPORATE SOURCE:

Gothenburg, Sweden.

EUROPEAN JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY, SOURCE:

(1998 Feb) 10 (2) 119-24.

Journal code: B9X; 9000874. ISSN: 0954-691X.

PUB. COUNTRY: ENGLAND: United Kingdom

(CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)

(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199806

ENTRY DATE: Entered STN: 19980708

> Last Updated on STN: 19980708 Entered Medline: 19980624

```
=> E BORREBAECK C/AU 25
F.1
                   BORREAU J P/AU
             1
E2
                   BORREBACH D E/AU
             1
E3
          13 --> BORREBAECK C/AU
E4
           111
                   BORREBAECK C A/AU
E5
            1
                   BORREBAECK C K/AU
Ε6
            43
                   BORREBAEK B/AU
Ε7
             1
                   BORRECA C/AU
E8
             1
                   BORRECA F A/AU
E9
             4
                   BORREDA D/AU
            25
E10
                   BORREDON C/AU
E11
            16
                   BORREDON J/AU
E12
                   BORREDON J J/AU
            1
E13
             4
                   BORREDON P/AU
            2
E14
                   BORREE J/AU
E15
            1
                   BORREE J A/AU
E16
            1
                   BORREGA F/AU
E17
             2
                   BORREGA GARCIA P/AU
E18
             1
                   BORREGA N G/AU
E19
             1
                   BORREGA P/AU
E20
           138
                   BORREGAARD N/AU
                   BORREGALES L/AU
E21
           1
E22
             1
                   BORREGALES TORRES E/AU
                   BORREGANA J/AU
E23 -
             1
E24
             1
                   BORREGARD L/AU
E25
             1
                   BORREGARD N/AU
=> S (E3)
L16
            13 ("BORREBAECK C"/AU)
```

=> DIS L16 1- IBIB

YOU HAVE REQUESTED DATA FROM 13 ANSWERS - CONTINUE? Y/(N):Y THE ESTIMATED COST FOR THIS REQUEST IS 1.95 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L16 ANSWER 1 OF 13 MEDLINE

ACCESSION NUMBER: 1999308789 MEDLINE

PubMed ID: 10381082 DOCUMENT NUMBER: 99308789

TITLE:

Synthesis of a eukaryotic virus protein in a prokaryotic viral-cell system: production of the adenovirus type 2 fiber shaft fragment by a tightly regulated  ${\tt T7POL-M13}$ 

expression system.

Duenas M; Rodriguez E; Nilsson N; Everitt E; AUTHOR:

Borrebaeck C

CORPORATE SOURCE: Immunotechnology and Diagnosis Division, Center for

Genetic

Engineering and Biotechnology (CIGB), Havanna, Cuba.

SOURCE: JOURNAL OF VIROLOGICAL METHODS, (1999 May) 79 (2) 121-31.

Journal code: HQR; 8005839. ISSN: 0166-0934.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199908

ENTRY DATE: Entered STN: 19990820

> Last Updated on STN: 20000824 Entered Medline: 19990810

L16 ANSWER 2 OF 13 MEDLINE

ACCESSION NUMBER: 96324736 MEDLINE

DOCUMENT NUMBER: 96324736 PubMed ID: 8757960

TITLE: Elevated expression levels of an Iq transgene in mice

links the IgH 3' enhancer to the regulation of IgH expression.

AUTHOR: Arulampalam V; Furebring C; Samuelsson A; Lendahl U;

Borrebaeck C; Lundkvist I; Pettersson S

CORPORATE SOURCE: Department of Biosciences, Karolinska Institute, NOVUM,

141

57 Huddinge, Sweden.

SOURCE: INTERNATIONAL IMMUNOLOGY, (1996 Jul) 8 (7) 1149-57.

Journal code: AY5; 8916182. ISSN: 0953-8178.

PUB. COUNTRY: ENGLAND: United Kingdom

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199701

ENTRY DATE: Entered STN: 19970219

Last Updated on STN: 19970219 Entered Medline: 19970121

L16 ANSWER 3 OF 13 MEDLINE

ACCESSION NUMBER: 81248997 MEDLINE

DOCUMENT NUMBER: 81248997 PubMed ID: 7256185

TITLE: Simple routine assay for serum urea using immobilized

urease.

AUTHOR: Borrebaeck C; Borjeson J

SOURCE: SCANDINAVIAN JOURNAL OF CLINICAL AND LABORATORY

INVESTIGATION, (1980 Apr) 40 (2) 169-72.

Journal code: UCP; 0404375. ISSN: 0036-5513.

PUB. COUNTRY: Norway

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

Priority Journals FILE SEGMENT:

ENTRY MONTH: 198109

ENTRY DATE: Entered STN: 19900316

> Last Updated on STN: 19900316 Entered Medline: 19810925

L16 ANSWER 4 OF 13 MEDLINE

ACCESSION NUMBER: 81193139 MEDLINE

DOCUMENT NUMBER: 81193139 PubMed ID: 7014722

TITLE: Liposome immune assay (LIA). Use of membrane antigens

inserted into labeled lipid vesicles as targets in immune

assays.

AUTHOR: Axelsson B; Eriksson H; Borrebaeck C; Mattiasson

B; Sjogren H O

CONTRACT NUMBER: CA 14924 (NCI)

SOURCE: JOURNAL OF IMMUNOLOGICAL METHODS, (1981) 41 (3) 351-63.

Journal code: IFE; 1305440. ISSN: 0022-1759.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198107

ENTRY DATE: Entered STN: 19900316

Last Updated on STN: 19970203 Entered Medline: 19810723

L16 ANSWER 5 OF 13 MEDLINE

ACCESSION NUMBER: 81117356 MEDLINE

DOCUMENT NUMBER: 81117356 PubMed ID: 7462242

TITLE: Carbohydrate binding properties of th Dolichos biflorus

lectin and its subunits.

AUTHOR: Etzler M E; Gupta S; Borrebaeck C

CONTRACT NUMBER: GM 21882 (NIGMS)

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1981 Mar 10) 256 (5)

2367-70.

Journal code: HIV; 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198104

ENTRY DATE: Entered STN: 19900316

Last Updated on STN: 19970203 Entered Medline: 19810424

L16 ANSWER 6 OF 13 MEDLINE

ACCESSION NUMBER: 81062474 MEDLINE

DOCUMENT NUMBER: 81062474 PubMed ID: 7192093

TITLE: Carbohydrate binding activity of a lectin-like

glycoprotein

from stems and leaves of Dolichos biflorus.

AUTHOR: Etzler M E; Borrebaeck C

CONTRACT NUMBER: GM 21882 (NIGMS)

SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (1980

Sep 16) 96 (1) 92-7.

Journal code: 9Y8; 0372516. ISSN: 0006-291X.

PUB. COUNTRY: United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198101

ENTRY DATE: Entered STN: 19900316

Last Updated on STN: 19970203 Entered Medline: 19810116

L16 ANSWER 7 OF 13 MEDLINE

ACCESSION NUMBER: 81060329 MEDLINE

DOCUMENT NUMBER: 81060329 PubMed ID: 7435975

TITLE: Lectin-carbohydrate interactions studied by a competitive

enzyme inhibition assay.

AUTHOR: Borrebaeck C; Mattiasson B

SOURCE: ANALYTICAL BIOCHEMISTRY, (1980 Sep 15) 107 (2) 446-50.

Journal code: 4NK; 0370535. ISSN: 0003-2697.

PUB. COUNTRY:

United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198101

ENTRY DATE:

Entered STN: 19900316

Last Updated on STN: 19900316

Entered Medline: 19810126

L16 ANSWER 8 OF 13 MEDLINE

ACCESSION NUMBER:

81004436 MEDLINE

DOCUMENT NUMBER:

81004436 PubMed ID: 7409169

TITLE:

A study of binding properties of the isolectins from the Dolichos biflorus plant using affinity electrophoresis.

Borrebaeck C; Etzler M E

CONTRACT NUMBER:

GM 21882 (NIGMS)

AUTHOR: CONTRACT SOURCE:

FEBS LETTERS, (1980 Aug 11) 117 (1) 237-40. Journal code: EUH; 0155157. ISSN: 0014-5793.

PUB. COUNTRY:

Netherlands

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198011

ENTRY DATE:

Entered STN: 19900316

Last Updated on STN: 19970203 Entered Medline: 19801125

L16 ANSWER 9 OF 13 MEDLINE

ACCESSION NUMBER:

80245994 MEDLINE .

DOCUMENT NUMBER:

80245994 PubMed ID: 7398639

TITLE:

A study of structurally related binding properties of concanavalin A using differential scanning calorimetry.

AUTHOR:

Borrebaeck C; Mattiasson B

SOURCE:

EUROPEAN JOURNAL OF BIOCHEMISTRY, (1980) 107 (1) 67-71. Journal code: EMZ; 0107600. ISSN: 0014-2956.

PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

198010

ENTRY DATE:

Entered STN: 19900315

Last Updated on STN: 19970203 Entered Medline: 19801024

L16 ANSWER 10 OF 13 MEDLINE

ACCESSION NUMBER:

79023521

MEDLINE

DOCUMENT NUMBER:

79023521 PubMed ID: 359194

TITLE: AUTHOR:

Non-equilibrium enzyme immunoassay of gentamicin. Mattiasson B; Svensson K; Borrebaeck C; Jonsson

S; Kronvall G

SOURCE:

CLINICAL CHEMISTRY, (1978 Oct) 24 (10) 1770-3. Journal code: DBZ; 9421549. ISSN: 0009-9147.

PUB. COUNTRY:

United States

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE:

English

FILE SEGMENT:

Priority Journals

ENTRY MONTH:

197812

ENTRY DATE:

Entered STN: 19900314

Last Updated on STN: 19900314 Entered Medline: 19781227 L16 ANSWER 11 OF 13 MEDLINE

ACCESSION NUMBER: 78213481 MEDLINE

DOCUMENT NUMBER: 78213481 PubMed ID: 352577

TITLE: Thermometric enzyme linked immunosorbent assay in

continuous flow system: optimization and evaluation using

human serum albumin as a model system.

AUTHOR: Borrebaeck C; Borjeson J; Mattiasson B

SOURCE: CLINICA CHIMICA ACTA, (1978 Jun 15) 86 (3) 267-78.

Journal code: DCC; 1302422. ISSN: 0009-8981.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 197809

ENTRY DATE: Entered STN: 19900314

Last Updated on STN: 19900314 Entered Medline: 19780915

L16 ANSWER 12 OF 13 MEDLINE

ACCESSION NUMBER: 78084814 MEDLINE

DOCUMENT NUMBER: 78084814 PubMed ID: 620781

TITLE: An analytical flow system based on reversible

immobilization of enzymes and whole cells utilizing

specific lectin-glucoprotein interactions.

AUTHOR: Mattiasson B; Borrebaeck C

SOURCE: FEBS LETTERS, (1978 Jan 1) 85 (1) 119-23.

Journal code: EUH; 0155157. ISSN: 0014-5793.

PUB. COUNTRY: Netherlands

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 197803

ENTRY DATE: Entered STN: 19900314

Last Updated on STN: 19970203 Entered Medline: 19780310

L16 ANSWER 13 OF 13 MEDLINE

ACCESSION NUMBER: 77242402 MEDLINE

DOCUMENT NUMBER: 77242402 PubMed ID: 329888

TITLE: Thermometric enzyme linked immunosorbent assay: TELISA.

AUTHOR: Mattiasson B; Borrebaeck C; Sanfridson B; Mosbach

F

SOURCE: BIOCHIMICA ET BIOPHYSICA ACTA, (1977 Aug 11) 483 (2)

221-7.

PUB. COUNTRY:

Journal code: AOW; 0217513. ISSN: 0006-3002. Netherlands

Journ

Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 197710

ENTRY DATE: Entered STN: 19900314

Last Updated on STN: 19900314 Entered Medline: 19771014 Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS
SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 6.75 95.20

STN INTERNATIONAL LOGOFF AT 16:49:17 ON 19 JUN 2001